03050109-100
(Reedy River)

General Description

Watershed 03050109-100 is located in Greenville County and consists primarily of the *Reedy River* and its tributaries from its origin to Huff Creek. The watershed occupies 73,748 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Cecil-Madison series. The erodibility of the soil (K) averages 0.26; the slope of the terrain averages 15%, with a range of 2-40%. Land use/land cover in the watershed includes: 52.75% urban land, 8.15% agricultural land, 1.64% scrub/shrub land, 0.21% barren land, 37.20% forested land, and 0.05% water.

The Reedy River originates near the Town of Travelers Rest and flows through the City of Greenville downstream to the Town of Fork Shoals, where it accepts the drainage of the Huff Creek watershed (03050109-110). Little Creek, Langston Creek, Long Branch, Richland Creek, and Brushy Creek (Cow Creek) drain into the Reedy River as it flows through the City of Greenville. Marrow Bone Creek and Laurel Creek enter the river near the Donaldson Industrial Park, and Maddog Creek and Rocky Creek drain into the river further downstream. This watershed contains a total of 138.6 stream miles, all classified FW. There are several small lakes above and below the City of Greenville used for recreation or industrial purposes. Swan Lake (30 acres) on the Furman University campus is used for recreation.

Water Quality

Station #	Type	Class	Description
S-073	P	FW	REEDY RIVER AT UN# RD OFF US 276, .75 MI E TRAVELERS REST
S-868	BIO	FW	REEDY RIVER AT SR 133
S-264	S	FW	LANGSTON CREEK AT SC 253
S-319	W	FW	REEDY RIVER AT RIVERS ST, DOWNTOWN GREENVILLE
S-013	P	FW	REEDY RIVER AT S-23-30, 3.9 MI SE GREENVILLE
S-067	S	FW	BRUSHY CK ON GREEN ST EXT, BELOW DUNEAN MILL ON SC 20
S-867	BIO	FW	BRUSHY CREEK SR 30
S-018	P	FW	REEDY RIVER AT S-23-448, 1.75 MI SE CONESTEE
S-091	S	FW	ROCKY CREEK AT S-23-453, 3.5 MI SW OF SIMPSONVILLE
S-072	S	FW	REEDY RIVER ON HWY 418 AT FORK SHOALS

***Reedy River* - There are six monitoring sites along this section of the Reedy River, which was Class B until April, 1992. At the furthest upstream site (S-073), aquatic life uses are fully supported, but there was a very high concentration of zinc measured in 1996. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. The pesticide ethion was detected in the 1994 sediment sample. Recreational uses are partially supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria. Aquatic life uses are partially supported at the next site downstream (S-868) based on macroinvertebrate community data.**

Aquatic life uses are not supported further downstream (S-319), due to occurrences of zinc in excess of the aquatic life acute standards including a high concentration of zinc measured in 1997. Fluoranthene (a polycyclic aromatic hydrocarbon) was detected in the 1997 sediment sample. Recreational uses are not supported due to fecal coliform bacteria excursions. Further downstream (S-013), aquatic life uses are not supported due to occurrences of copper and chromium in excess of the aquatic life acute standards including very high concentrations of chromium measured in 1996 and 1997, and a very high concentration of lead in 1993. In addition, there was a significant decreasing trend in pH and a significant

increasing trend in total suspended solids. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions.

At the next site downstream (S-018), aquatic life uses are again not supported due to occurrences of copper, chromium, and zinc in excess of the aquatic life acute standards, including very high concentrations of chromium measured in 1995, 1996, and 1997, a high concentration of zinc measured in 1997, and a very high concentration of zinc measured in 1994. In addition, there was a significant decreasing trend in pH. Dibromochloromethane was detected in the water column in 1994. In sediment samples, a high concentration of chromium was measured in 1993, a very high concentration of zinc was measured in 1997, and bis(2-ethylhexyl) phthalate was detected in the 1994 sample. A significant increasing trend in dissolved oxygen and significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria.

At the furthest downstream site (S-072), aquatic life uses are fully supported, but there was a very high concentration of chromium measured in 1996 and a high concentration of zinc measured in 1997. A significant increasing trend in dissolved oxygen and significant decreasing trend in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions.

***Langston Creek (S-264)* - This stream was Class B until April, 1992. Aquatic life uses are not supported due to occurrences of chromium in excess of the aquatic life acute standards including very high concentrations of chromium measured in 1993 and 1994. A significant decreasing trend in total phosphorus suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria.**

***Brushy Creek* - There are two monitoring sites along Brushy Creek, which was Class B until April, 1992. At the upstream site (S-067), aquatic life uses are fully supported, but there is a significant decreasing trend in pH. A significant increasing trend in dissolved oxygen and significant decreasing trend in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. Aquatic life uses are partially supported at the downstream site (S-867) based on macroinvertebrate community data.**

***Rocky Creek (S-091)* - This stream was Class B until April, 1992. Aquatic life uses are partially supported based on macroinvertebrate community data, compounded by a significant decreasing trend in dissolved oxygen. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.**

Permitted Activities

Point Source Contributions

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)* *COMMENT*	*NPDES#* *TYPE* *LIMITATION*
REEDY RIVER **JPS CONVERTER & INDUSTRIES** **PIPE #: 001 FLOW: M/R**	**SCG250122** **MINOR INDUSTRIAL** **EFFLUENT**
REEDY RIVER **WCRSA/LOWER REEDY RIVER PLT** **PIPE #: 001 FLOW: 7.50** **WQL FOR NH3-N, DO, TRC, P**	**SC0024261** **MAJOR MUNICIPAL** **WATER QUALITY**
REEDY RIVER **WCRSA/MAULDIN ROAD PLANT** **PIPE #: 001 FLOW: 29.0** **WQL FOR NH3-N, DO, TRC, BOD5, P**	**SC0041211** **MAJOR MUNICIPAL** **WATER QUALITY**
LITTLE CREEK **ALTAMONT MOBILE HOME** **PIPE #: 001 FLOW: 0.0135** **WQL FOR TRC**	**SC0028533** **MINOR DOMESTIC** **WATER QUALITY**
RICHLAND CREEK **METROMONT MATERIALS** **PIPE #: 001 FLOW: M/R**	**SC0001287** **MINOR INDUSTRIAL** **EFFLUENT**
BRUSHY CREEK **METROMONT MATERIALS** **PIPE #: 001 FLOW: M/R**	**SC0001295** **MINOR INDUSTRIAL** **EFFLUENT**
BRUSHY CREEK TRIBUTARY **JPS AUTOMOTIVE PRODUCTS** **PIPE #: 001 FLOW: M/R**	**SCG250116** **MINOR INDUSTRIAL** **EFFLUENT**
BRUSHY CREEK TRIBUTARY **SOUTHERN WATER TREATMENTS** **PIPE #: 001 FLOW: M/R**	**SCG250165** **MINOR INDUSTRIAL** **EFFLUENT**
COW CREEK **MILLIKEN & CO./JUDSON PLT** **PIPE #: 001 FLOW: M/R**	**SCG250026** **MINOR INDUSTRIAL** **EFFLUENT**
MARROW BONE CREEK **CRUCIBLE CHEMICAL CO.** **PIPE #: 001 FLOW: M/R**	**SCG250139** **MINOR INDUSTRIAL** **EFFLUENT**
LAUREL CREEK **JOHN D. HOLLINGSWORTH ON WHEELS** **PIPE #: 01S FLOW: M/R**	**SC0033774** **MINOR INDUSTRIAL** **EFFLUENT**
LAUREL CREEK **HNA HOLDINGS, INC./GREENVILLE** **PIPE #: 001 FLOW: M/R** **WQL FOR NH3-N, DO**	**SC0002305** **MINOR INDUSTRIAL** **WATER QUALITY**

Nonpoint Source Contributions

Streambank and Silvicultural Demonstration Project

The streambank component of this project demonstrates BMPs related to streambank stabilization and restoration to homeowners and local governments. It is being implemented by the Greenville County Conservation District and is located on a tributary to the Reedy River. The silvicultural demonstration component of the project is located in the watersheds of the North and South Saluda River. It is demonstrating proper timber harvesting BMPs to forest landowners in the watershed. The project began in August of 1996 and is scheduled to be completed in April of 1999.

Landfill Activities

SOLID WASTE LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
CITY OF GREENVILLE LANDFILL MUNICIPAL	231002-1101 ACTIVE
CITY OF SIMPSONVILLE LANDFILL #1 MUNICIPAL	------- CLOSED
CITY OF SIMPSONVILLE LANDFILL #2 MUNICIPAL	------- CLOSED

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
BURDETTE ENTERPRISES, INC. CONESTEE ROAD BORROW PIT	1101-23 SAND/CLAY

Groundwater Concerns

The groundwater in the vicinity of the landfill owned by the City of Simpsonville is contaminated with volatile organics and metals (chromium and zinc); a remedial investigation is pending. The surface water affected by the groundwater contamination is an unnamed tributary to the Reedy River.

The groundwater in the vicinity of the surface impoundments owned by Evode Tanner is contaminated with volatile organics. The facility is in the assessment phase. The surface water affected by the groundwater contamination is an unnamed tributary to Richland Creek.

The surface waters of Laurel Creek are affected by facility-related groundwater contamination. Groundwater in the vicinity of the surface impoundments owned by Chemurgy is contaminated with volatile organics, and the facility is in the remediation phase.

The groundwater in the vicinity of the landfill and surface impoundments owned by Hoechst Celanese is contaminated with volatile and semi-volatile organics. The facility is in the remediation phase, and the landfill and lagoon excavations have been completed.

The groundwater in the vicinity of the facility owned by American Fast Print/U.S. Finishing (formerly Cone Mills) is contaminated with chromium and petroleum products due to spills and leaks. The facility is in the remediation phase and the upgraded recovery system is operational. The surface water affected by the groundwater contamination is Langston Creek.

Growth Potential

The City of Greenville is located in this watershed and has a high potential to continue as an urban growth area, particularly in the area south of the city. Both the I-85 and I-385 corridors are in this watershed and contribute greatly to the growth. There are a large number of existing industrial sites near the I-385 corridor, together with the Donaldson Center and several rail lines to encourage more industrial growth. Greenville County's zoning boundary will extend southward to SC 418 and should promote medium density development.